

## CLAIMS:

1. A dialog system (1) comprising processing units for  
- automatic speech recognition (3),  
- natural language understanding (4),  
- defining system outputs in dependence on information (7) derived from user inputs,  
5 - generating acoustic and/or visual system outputs (9, 10, 11, 12),  
- deriving user models (22, 25), while the user models (22, 25) contain details about the  
style of speech of user inputs and/or details about interactions in dialogs between users  
and the dialog system (1) and adaptation of contents and/or form of system outputs is  
provided in dependence on the user models (22, 25).

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2. A dialog system as claimed in claim 1,  
characterized  
in that in addition to the input modality to use user inputs by means of speech, at least a  
further input modality is provided and  
15 in that the user models (22, 25) contain details about the respective use of the various input  
modalities by the user.

3. A dialog system as claimed in claim 1 or 2,  
characterized  
20 in that the user models (22, 25) contain estimates for the reliability of recognition results  
derived from user inputs.

4. A dialog system as claimed in claim 3,  
characterized  
25 in that in dependence on the estimates, system responses are generated which prompt the  
respective user to use such input modalities for which high estimate values were determined  
and/or which prevent the respective user from using input modalities for which low reliability  
values were determined.

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5. A dialog system as claimed in one of the claims 1 to 4,  
characterized  
in that fixed models of user stereotypes (22) are used for forming the user models.

5 6. A dialog system as claimed in one of the claims 1 to 5,  
characterized  
in that user models (25) are used which are continuously updated based on inputs of the  
respective user.

10 7. A method of operating a dialog system, in which processing units are used for  
- automatic speech recognition (3),  
- natural language understanding (4),  
- defining system outputs in dependence on information (7) derived from user inputs,  
- generating acoustic and/or visual system outputs (9, 10, 11, 12), and  
15 - deriving user models (13),  
while the user models contain details about the style of speech of user inputs and/or  
indications about interactions in dialogs between users and the dialog system (1) and an  
adaptation of contents and/or form of system outputs is provided in dependence on the user  
models (22, 25).

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